Proposed Course:
4 credits
Two 2 hour Lecture/labs per week
Part I of a two-part Web Services Curriculum

Web Services Implementation and Management across the Enterprise: Part I

- This Course will integrate the skills established from materials offered throughout the CSC, MGE, CPE, and IS Programs.
- Students will see how Dynamic Web Pages are automatically generated, Data Automatically Collected, Retrieved, and Stored in Databases; and how to design and implement theWeb-Services Project across the Enterprise
- Since Web Services are becoming one of the most Critical Components of Enterprise Management this course will integrate skills across numerous disciplines within Information Systems
- In an effort to help the student understand how each of these concepts is related to the Management of all aspects of the Modern Enterprise Organization; Information and Knowledge will be drawn from the following course work:

- Communications
- Database Applications
- Computer Programming and various Programming Languages
- Networking
- Systems Analysis
- Operating Systems (OS) and Systems and Hardware Architecture
- Program Management
- Software Design

The Course will cover; within a Lecture and Hands-on Laboratory Environment:

1. Basic Systems and Networking concepts to be used in the course
2. An Introduction to Web Services
   - The Human-Centric Web
   - The Application-Centric Web
   - The Semantic Web
3. Configuring the Server (UNIX/LINUX and WebMin)
   - Hardware Issues
   - Software issues

4. Configuring the Network (Windows/SAMBA, Ethereal, and NetSaint)
   - Hardware Issues
   - Software issues
5. Configuring the Mail Server (Sendmail)
   - Hardware Issues
   - Software issues
6. Configuring the List Server (Mailman)
   - Hardware Issues
   - Software issues
7. Configuring the Web Mail Server (SquirrelMail)
   - Hardware Issues
   - Software issues
8. Configuring the Web Server (Apache)
   - Hardware Issues
   - Software issues
9. Configuring the FTP Server (WuFTP and TFTP)
   - Hardware Issues
   - Software issues
10. Configuring the Data Base (MySQL)
   - Hardware Issues
   - Software issues
11. Configuring the PHP Server (PHP4.1)
   - Hardware Issues
   - Software issues
12. Configuring the Concurrent Versions System (CVS and ANTHILL) Server
   - Hardware Issues
   - Software issues
13. Setting up the PHP-based Web Site and Web Services
14. Remote Procedure Calls and Communications Concepts such as Hyper Text Transport Protocol (HTTP), Simple Object Access Protocol (SOAP), Web Services Description Language (WSDL), and eXtensible Markup Language – Remote Procedure Call (XML-RPC)
15. Web Services and how they function as the basic components for the Management of the Modern Enterprise Network
16. The Web Services Console Interface for deploying Web Services and Connecting to Existing services (Loading, Configuring and using the GLUE Console)
17. A simple example to show designing and implementing a Web Services Application from Start to Finish